

CLAIMS: Please amend the claims according to the status designations in the following list, which contains all claims that were ever in the patent application, with the text of all active claims.

1. (CURRENTLY AMENDED) A high brightness light emitting diode (LED) emitting light of white or desire color, comprising:
a substrate;
an epitaxial layer comprising a first-type cladding layer disposed on said substrate, a first active layer emitting light of first wavelength and disposed on said first-type cladding layer, a second active layer emitting light of second wavelength and disposed on said first active layer, and a second-type cladding layer disposed on said second active layer; wherein a material system of said first active layer is selected from a group comprising $(Al_{sub.x}Ga_{sub.1-x})_{sub.y}In_{sub.1-y}P_{sub.z}N_{sub.1-z}$ ($0 < x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$); wherein a material system of said second active layer is selected from a group comprising $(Al_{sub.x}Ga_{sub.1-x})_{sub.y}In_{sub.1-y}P_{sub.z}N_{sub.1-z}$ ($0 < x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$);
a first electrode disposed on an exposed portion of said first-type cladding layer;
a second electrode disposed on said second-type cladding layer.
2. (ORIGINAL) The high brightness light emitting diode (LED) of claim 1, further comprises a transition active layer sandwiched between said first and said second active layers.
3. (ORIGINAL) The high brightness light emitting diode (LED) of claim 2, wherein a material system of said transition active layer is selected from a group comprising $(Al_{sub.x}Ga_{sub.1-x})_{sub.y}In_{sub.1-y}P_{sub.z}N_{sub.1-z}$ ($0 < x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$).
4. (CANCELED)
5. (CANCELED)
6. (CANCELED AND COMBINED INTO AMENDED CLAIM 1)
7. (CANCELED AND COMBINED INTO AMENDED CLAIM 1)
8. (ORIGINAL) The high brightness light emitting diode (LED) of claim 1, wherein a material system of said first cladding layer is selected from a group comprising $B_{sub.x}Al_{sub.y}Ga_{sub.z}In_{sub.1-x-y-z}P_{sub.u}N_{sub.1-u}$ ($0 < x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$, $x + y + z \leq 1$, $0 < u < 1$)

9. (ORIGINAL) The high brightness light emitting diode (LED) of claim 1, wherein a material system of said second cladding layer is selected from a group comprising $B_{sub.x}Al_{sub.y}Ga_{sub.z}In_{sub.1-x-y-z}P_{sub.u}N_{sub.1-u}$ ($0 < x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$, $x + y + z \leq 1$, $0 \leq u \leq 1$).
10. (CURRENTLY AMENDED) A high brightness light emitting diode (LED) emitting light of white or desire color, comprising:
an electrical conductive submount;
an epitaxial layer comprising a first-type cladding layer, a first active layer disposed on said first-type cladding layer and emitting light of first wavelength, a second active layer disposed on said first active layer and emitting light of second wavelength, a second-type cladding layer disposed between said second active layer and one side of said submount; wherein a material system of said first active layer is selected from a group comprising $(Al_{sub.x}Ga_{sub.1-x})_{sub.y}In_{sub.1-y}P_{sub.z}N_{sub.1-z}$ ($0 < x \leq 1$, $0 < y \leq 1$, $0 \leq z \leq 1$); wherein a material system of said second active layer is selected from a group comprising $(Al_{sub.x}Ga_{sub.1-x})_{sub.y}In_{sub.1-y}P_{sub.z}N_{sub.1-z}$ ($0 < x \leq 1$, $0 < y \leq 1$, $0 < z \leq 1$);
a first electrode disposed on said first-type cladding layer;
a second electrode disposed on the other side of said submount.
11. (ORIGINAL) The high brightness light emitting diode (LED) of claim 10, further comprises a transition active layer sandwiched between said first and said second active layers.
12. (ORIGINAL) The high brightness light emitting diode (LED) of claim 11, wherein a material system of said transition active layer is selected from a group comprising $(Al_{sub.x}Ga_{sub.1-x})_{sub.y}In_{sub.1-y}P_{sub.z}N_{sub.1-z}$ ($0 < x \leq 1$, $0 < y \leq 1$, $0 < z \leq 1$).
13. (CANCELED)
14. (ORIGINAL) The high brightness light emitting diode (LED) of claim 10, further comprises a reflector/Ohmic layer sandwiched between said submount and said second-type cladding layer.
15. (ORIGINAL) The high brightness light emitting diode (LED) of claim 14, wherein said

reflector/Ohmic layer comprises materials selected from a group comprising metals of Al, Au, Ag, In, Ni, Ti, Pd, Pt, alloys of said metals, and TiN or HfN.

16. (CANCELLED AND COMBINED INTO AMENDED CLAIM 10)
17. (CANCELLED AND COMBINED INTO AMENDED CLAIM 10)
18. (ORIGINAL) The high brightness light emitting diode (LED) of claim 10, wherein a material system of said first cladding layer is selected from a group comprising $B_{\sub{x}} Al_{\sub{y}} Ga_{\sub{z}} In_{\sub{1-x-y-z}} P_{\sub{u}} N_{\sub{1-u}}$ ($0 < x \leq 1$, $0 \leq y < 1$, $0 \leq z < 1$, $x + y + z \leq 1$, $0 \leq u < 1$).
19. (ORIGINAL) The high brightness light emitting diode (LED) of claim 10, wherein a material system of said second cladding layer is selected from a group comprising $B_{\sub{x}} Al_{\sub{y}} Ga_{\sub{z}} In_{\sub{1-x-y-z}} P_{\sub{u}} N_{\sub{1-u}}$ ($0 < x \leq 1$, $0 \leq y < 1$, $0 \leq z < 1$, $x + y + z \leq 1$, $0 \leq u \leq 1$).
20. (ORIGINAL) The high brightness light emitting diode (LED) of claim 10, wherein said first electrode is patterned for improving current crowding, distributing current more uniformly, increasing current density, and fully utilizing the material of said active layers.
21. (ORIGINAL) The high brightness light emitting diode (LED) of claim 20, wherein said patterned first electrode is a ring-grid-shape.
22. (ORIGINAL) The high brightness light emitting diode (LED) of claim 20, wherein said patterned first electrode is a plus-multi-ring-shape.